

IN THE CLAIMS

Claim 1 (previously presented): Method of processing, by machine, composite components comprising at least a support device and a stamp pad by means of a processing device, whereby, in order to process the composite component at least one operating head of a material-removing unit and the composite component are moved relative to one another by means of a handling unit controlled and/or regulated by a control unit and material is removed from the composite component by the material-removing unit, wherein the stamp pad of the composite component which is at least partially joined to the support device is divided into several pad parts spaced at a distance apart from one another by means of a dividing gap by the material-removing unit and wherein at least one effector unit, which preferably incorporates at least one dispensing unit of the ink dispenser unit and the operating head of the material-removing device, can be displaced and positioned by means of the handling unit.

Claim 2 (previously presented): Method as claimed in claim 1, wherein at least one cutting line is defined on a processing surface of the composite component by means of the control unit, and the stamp pad is split into the pad parts along the cutting line.

Claim 3 (previously presented): Method as claimed in claim 1, wherein material is continuously removed across a thickness of the stamp pad, preferably along the cutting line, in order to form the dividing gap and a composite component with non-connected pad parts is thus produced.

Claim 4 (previously presented): Method as claimed in claim 1, wherein once the stamp pad has been cut into several pad

parts, it is preferably provided with stamping ink or inking fluids by means of the ink dispenser unit.

Claim 5 (previously presented): Method as claimed in claim 4, wherein the pad parts are provided with differently coloured stamping inks or inking fluids.

Claim 6 (previously presented): Method as claimed in claim 4, wherein ink is dispensed by the ink dispenser unit in the form of ink drops, which are dripped through one or more outlet orifices in the direction of at least one application point on one of the pad parts.

Claim 7 (previously presented): Method as claimed in claim 4, wherein several application points of a pad top face of the stamp pad are fixed or pre-set by the control unit, in a grid pattern.

Claim 8 (previously presented): Method as claimed in claim 4, wherein different types of stamping ink for the different pad parts are dispensed respectively via different outlet orifices, each with a flow connection to separate housing chambers in stamping ink containers and/ or different types of stamping inks for the different pad parts are dispensed via a single outlet orifice which can be connected to several different housing chambers in stamping ink containers for different stamping ink.

Claim 9 (previously presented): Method as claimed in claim 4, wherein several differently coloured stamping inks are mixed and different types or colours of stamping inks are created in readiness for application to the pad parts by a process of mixing specifically metered quantities of stamping inks.

Claim 10 (previously presented): Method as claimed in claim 4, wherein at least the outlet orifice of the ink dispenser unit is positioned at different application points in order to dispense ink, preferably at grid points.

Claim 11 (previously presented): Method as claimed in claim 4, wherein ink is applied in pulses to the application points by means of one or more ink drops.

Claim 12 (previously presented): Method as claimed in claim 4, wherein the stamping ink is dispensed by a fluid ejection from the at least one outlet orifice by briefly applying a pressure surge, at least in the region of the outlet orifice, preferably in the ink containers.

Claim 13 (previously presented): Method as claimed in claim 4, wherein the outlet orifice is sealed to prevent unintentional dispensing of ink by means of a shut-off device which can be switched into a position permitting a passage by applying force and which is preferably in the closed position in the normal state.

Claim 14 (Cancelled).

Claim 15 (previously presented): Method as claimed in claim 1, wherein surface part-regions are set and/or can be set by the control unit on the processing surface of the composite component, after which the stamp pad is cut, preferably into the individual pad parts on the basis of these surface part-regions.

Claim 16 (previously presented): Method as claimed in claim 15, wherein the cutting line between mutually adjacent surface part-regions along which at least the material-removing unit is

moved by the handling unit is fixed by means of the control unit.

Claim 17 (previously presented): Method as claimed in claim 1, wherein the support device for the stamp pad and the pad parts on a base plate are scored along the cutting line simultaneously with the cutting process of the stamp pad by the material-removing unit and/or is partially severed at retaining projections in the region of the processing surface.

Claim 18 (previously presented): Method as claimed in claim 1, wherein the effector unit or individual components of the effector unit are displaced and positioned in an XY plane by means of the handling unit controlled by the control unit.

Claim 19 (previously presented): Method as claimed in claim 1, wherein the surface part-regions are set from an input and/or output device co-operating with the control unit.

Claim 20 (previously presented): Method as claimed in claim 1, wherein a diagram of a stamp surface of a stamp plate, is displayed at an output unit of a computer unit such as a personal computer for example, and the diagram is divided into several part regions via an input and/or output device.

Claim 21 (previously presented): Method as claimed in claim 20, wherein the part regions are divided by setting several engraved patterns to be formed and applied to the diagram and these engraved patterns are then formed on a stamp plate preferably by means of the material-removing unit.

Claim 22 (previously presented): Method as claimed in claim 19, wherein the surface part regions and cutting lines on the

stamp pad for cutting the stamp pad into pad parts are fixed depending on the number and shape of the part regions or engraved patterns by means of the control unit.

Claim 23 (previously presented): Method as claimed in claim 1, wherein the control and/or regulating procedures and computing routines of the control unit are run by software means.

Claim 24 (previously presented): Method as claimed in claim 1, wherein, once the part regions or engraved patterns have been fixed by means of the input and/or output device, the regions or cutting lines are automatically divided by the software means in order to produce the pad parts and/ or stamp plate.

Claim 25 (previously presented): Method as claimed in claim 1, wherein material is removed by the material-removing unit by energy irradiated from a radiation source.

Claim 26 (currently amended): Processing device for processing composite components comprising:

a support device;
a stamp pad; ~~at least incorporating~~
a material-removing unit having at least one operating
head; and

a handling unit, whereby
wherein the at least one operating head of the material-removing unit can be adjusted by means of the handling unit at least in an XY plane, and the handling unit is connected to a control unit in order to control and/or regulate it, wherein the processing device has an ink dispenser unit for dispensing stamping ink as required, and

wherein the stamp pad of the composite components at least partially joined to the support device is divided into several pad parts spaced at a distance apart from one another by means of a dividing gap by the material-removing unit.

Claim 27 (previously presented): Processing device as claimed in claim 26, wherein the handling unit is designed to displace at least one outlet orifice of the ink dispenser unit relative to a workpiece holder.

Claim 28 (previously presented): Processing device as claimed in claim 26, wherein the ink dispenser unit has at least one dispensing unit with one or more dispenser nozzles for stamping ink.

Claim 29 (previously presented): Processing device as claimed in claim 26, wherein in order to set up an effector unit for co-operating with the handling unit, at least the dispensing unit of the ink dispenser unit and/or at least the operating head of the material-removing unit co-operates with it and the latter are preferably disposed on a retaining unit of the effector unit and are coupled therewith in displacement.

Claim 30 (previously presented): Processing device as claimed in claim 26, wherein the effector unit is designed so that it can be positioned and displaced by means of the handling unit.

Claim 31 (previously presented): Processing device as claimed in claim 26, wherein the ink dispenser unit has at least one outlet orifice in the form of a discharge passage for dispensing the stamping ink.

Claim 32 (previously presented): Processing device as claimed in claim 31, wherein the outlet orifice is disposed on the dispenser nozzle and the outlet orifice has a flow connection to at least one ink container.

Claim 33 (previously presented): Processing device as claimed in claim 26, wherein the ink dispenser unit has several nozzles with outlet orifices.

Claim 34 (previously presented): Processing device as claimed in claim 31, wherein one or more outlet orifices of the dispenser nozzles each have a flow connection to a flow passage for stamping ink in fluid lines.

Claim 35 (previously presented): Processing device as claimed in claim 26, wherein the at least one ink container is preferably disposed in a stationary arrangement on a production system and its housing chamber for stamping ink preferably has a flow connection via at least one fluid line to the outlet orifice or orifices.

Claim 36 (previously presented): Processing device as claimed in claim 26, wherein the ink dispenser unit has a metering unit to enable controlled dispensing of stamping ink.

Claim 37 (previously presented): Processing device as claimed in claim 36, wherein the metering unit is provided in the form of a pressure generator, which is actively connected to the ink delivery system, at least in the region of the outlet orifice.

Claim 38 (previously presented): Processing device as claimed in claim 26, wherein a shut-off device is provided,

preferably in the region of the outlet orifice in the ink delivery system, in order to provide a fluid-tight seal of the outlet orifice.

Claim 39 (previously presented): Processing device as claimed in claim 26, wherein a housing chamber of the at least one dispenser nozzle has a flow connection or can be placed in a flow connection with several ink delivery systems.

Claim 40 (currently amended): Processing device as claimed in claim 26 wherein the handling unit has at least one guide system and at least one drive mechanism for displacing and positioning preferably ~~the~~an effector unit.

Claim 41 (currently amended): Processing device as claimed in claim ~~26~~27, wherein the drive mechanism is actively connected to the control unit for control and/or regulation proposes and the drive mechanism is designated for adjusting and moving a support arm and/or the retaining unit of the effector unit as necessary by means of the guide system.

Claim 42 (previously presented): Processing device as claimed in claim 26, wherein the control unit has a memory unit in which software means are stored.

Claim 43 (previously presented): Processing device as claimed in claim 26, wherein the control unit is provided in the form of an input and/or output unit of the computer unit, connected via an interface to the processing device.

Claim 44 (previously presented): Processing device as claimed in claim 26, wherein the material-removing unit is provided in the form of a laser system.